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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,089

05/25/2007

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Q96241

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23373 7590 06/05/2009
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EXAMINER

STORMER, RUSSELL D

ART UNIT

PAPER NUMBER

3617

MAIL DATE

DELIVERY MODE

06/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/588,089	Applicant(s) FUJITA, YASUAKI	
	Examiner Russell D. Stormer	Art Unit 3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/12/09.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Drawings

Figure 7 is objected to because it is not labeled with a legend such as --Prior Art--.

See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 7, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaoka et al (U.S. Patent 6890042)

Inaoka et al discloses a track assembly comprising an endless rubber track and a roller wherein a contact area of the inner periphery of the track and the outer surface of the roller is less than 100%. As shown in figure 6, the outer surface of the roller is stepped at the inner and outer sides such that only a portion of the roller's outer surface

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contacts the track. The amount of contact appears to about 80%, but the exact amount is not disclosed. However, those of ordinary skill in the art could readily determine suitable contact areas of the roller with the inner surface of the track, and to choose a contact area of about 30% to 50% would have been obvious in order to optimize the engagement of the rollers with the track, and to further optimize the pressure of the track on the ground surface.

With respect to claim 7, the term “correspond” is vague and does not recite any clear structural relationship between the stepped portion of the roller and the endless track, and the assembly of Inaoka et al is considered to meet this limitation.

With respect to claim 9, the grousers or rubber lugs on the outer surface of the track are not in the shape of a distorted H. However, those of ordinary skill in the art could readily determine suitable shapes for the lugs based on the intended use of the vehicle, the size of the vehicle, and the operating conditions and traction requirements of the vehicle.

Claims 3-6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inaoka et al as applied to claim 1 above, and further in view of Watanabe et al (U.S. Patent 6471307).

The track of Inaoka et al does not include a stepped portion on the inner surface of the track.

Watanabe et al teaches an endless track comprising an inner surface with a raised or stepped portion on which the rollers travel. See figures 3 and 4, for instance.

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From this teaching it would have been obvious to provide the endless track of Inaoka et al with a stepped portion on the inner surface as this would strengthen or reinforce the central section of the track and resist bending in that area.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Inaoka et al in view of Watanabe et al as applied to claim 6 above, and further in view of Japanese document 3-19785 (cited by Applicant).

For the outer sides of the roller of Inaoka et al as modified by Watanabe et al to extend over the lower stage surfaces of the track would have been obvious as taught by Japanese document 3-19785 as this would allow a certain amount of bending or deflection of the track, but prevent excessive bending of the track. Although Japanese 3-19785 shows only one side of the roller to extend over a lower stage of the track, it would have been obvious to duplicate this on in the other side of the roller to protect that side of the track.

Response to Arguments

Applicant's arguments filed February 12, 2009 have been fully considered but they are not persuasive.

It is well-known in the art of endless elastomeric tracks that the contact surface between the bogie or intermediate rollers and the inner surface of the track will affect the distribution of the weight of the vehicle through the track to the ground. Narrow rollers will concentrate the weight of the vehicle in the center of the track and allow the

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lateral sides of the track to bend or flex upwardly in response to contact with an object such as a stone. Wide rollers will distribute the weight more evenly, but also weigh more, and when the track travels over a stone will transmit the motion and vibration caused by the stone impacting the track to the vehicle. Those of ordinary skill in the art could readily determine suitable widths for the rollers, or suitable roller-to-track surface contact ratios with respect to the overall width of the track.

Applicant's argument that "because Inaoka is lacking in disclosure of a range or suggestion that some range would be desirable, it is not fair to say that the presently claimed range would be obvious to one of ordinary skill in the art based on an optimization argument" is noted. However, the fact that Inaoka et al does not disclose a specific range does not render it impossible for those of ordinary skill in the art to determine a suitable or desired range. The extreme lower and upper ends of such a range or ratio (such as 10% and 90%, for instance) would be unsuitable because the lower range would provide too narrow a contact surface and too much pressure on the track from the roller, and the upper range would not provide any benefit (such as allowing a certain amount of bending of the track) and would needlessly increase the weight of the rollers and the vehicle. It would seem to be a simple matter of optimization for those of ordinary skill in the art to determine a suitable range. Further, somewhere in the range of 30% to 70% would be a likely starting point for those of ordinary skill due to the inherent unsuitability of the extreme upper and lower ranges.

As for the drawings of Inoaka et al showing a contact area of roughly 80%, the Examiner did **not** rely on the drawings for specific dimensions. The sentence after the

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mentions of 80% in the previous office action has been ignored by Applicant. Further, Inaoka et al was applied under 35 USC 103, and not 102.

With respect to the arguments of unexpected results, while the specification may note the consequences of a contact area that is too wide or too narrow, it does not state that such consequences were discovered by Applicant, or that they were unknown in the art, or that the use of the range of 30% to 70% produced any unexpected results.

The fact that the cited prior art might not disclose the results is irrelevant. It is what is known to those of ordinary skill in the art that is relevant. Moreover, note column 1 and lines 27-34 of column 6 of the 6942305 patent to Ueno cited in the previous office action.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell D. Stormer whose telephone number is (571) 272-6687. The examiner can normally be reached on Monday through Friday, 9 AM to 4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Morano can be reached on (571) 272-6684. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Russell D. Stormer/
Primary Examiner, Art Unit 3617